

A NEW SPECIES OF *SYMMETRISCHEMA* POVOLNÝ
(LEPIDOPTERA: GELECHIIDAE) FROM TEXAS

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Abstract.—*Symmetrischema kendallorum*, n. sp., is described. Imagines, male and female genitalia, and wing venation are figured. The host is *Physalis virginiana* Mill. var. *spathulaefolia* (Torr.) (Solanaceae).

The following new species was discovered in Neuces and Kleberg counties, Texas. Adults were reared from larvae and pupae found in galls on the upper stems of *Physalis virginiana* var. *spathulaefolia* of the family Solanaceae.

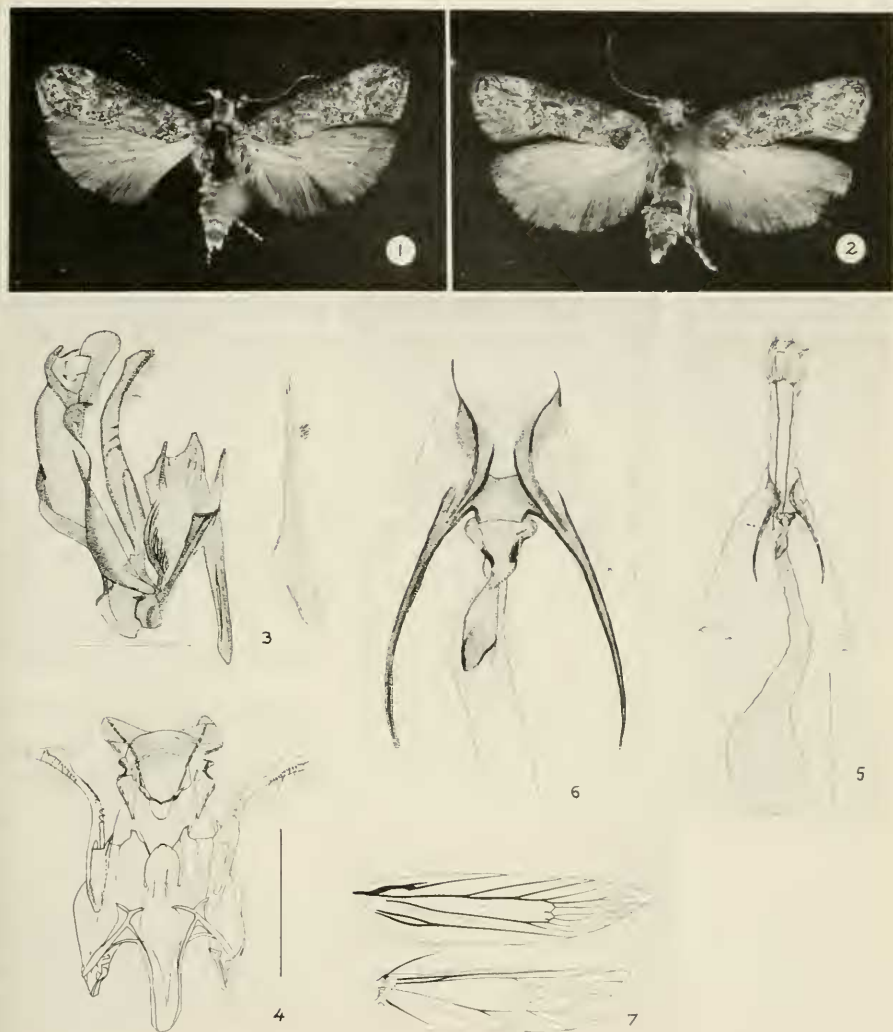
Symmetrischema kendallorum Blanchard and Knudson, NEW SPECIES

Figs. 1-7

Description.—*Head*: Front and vertex light ochreous variably irrorated with fulvous. *Labial palpi*: Exceeding front by 3 eye diameters, basal segments covered by ventro-anteriorly directed divided brush of ochreous scales, terminal segment light ochreous with 2 black bands, 1 submedial, 1 supramedial, scales closely appressed. *Ocelli*: Present. *Antenna*: Simple, flagellum with 2 scale rows per segment. Proximal scale row black with narrow whitish base. Distal 19 scale rows are as follows: 1 white 3 black, 1 white 3 black, 1 white 3 black, 1 white 3 black, 1 white 2 black.

Thorax: Light ochreous, speckled with fulvous.

Forewing: Ground color light ochreous, largely obscured by extensive fulvous overscaling and grayish-black patches. Grayish-black patches appear, under magnification, to consist of black scales having a grayish-white base and a narrow yellowish-white tip. An extensive grayish black patch occupies middle ½ of forewing from costal margin to fold and is interrupted, in the cell, by 2 fulvous spots, narrowly edged with ground color. A single row of grayish-black scales extends along dorsal margin, broadening to form a grayish-black patch near base. Extensive fulvous present along termen and above dorsal margin along fold. Fringe consisting of 3 rows of scales,



Figs. 1-7. *Symmetrischema kendallorum*. 1, Male holotype, North Padre Island, Nueces Co., Texas, 17-IX-81. 2, Female paratype, same locality, 18-IX-81. 3, Male genitalia, side view and separate aedeagus, slide ECK 239, paratype from same locality, 18-IX-81. 4, Male genitalia, ventral view, slide ECK 232, paratype from same locality, 22-IX-81. 5, Female genitalia, slide ECK 240, paratype from same locality, 18-IX-81. 6, Female genitalia, same slide, greater magnification, to show ostium bursae, 8th segment and its apophyses. 7, Wing venation of male paratype, same locality, 25-IX-81, slide A.B. 5050. Segments in Figs. 3, 4, 6, represent 0.5 mm; in Fig. 5, 1.0 mm.

inner 2 rows whitish with broad black apices, outer row ochreous with deeply dissected tips.

Hindwing: Light fuscous. Fringe concolorous, longer than width of wing.

Abdomen: Light fuscous, usually with some ochreous scaling at caudal end.

Length of forewing: Male: ($N = 20$) 4.9–6.0 mm, average 5.5 mm. Female: ($N = 20$) 5.0–6.6 mm, average 5.9 mm.

Venation: As in Fig. 7, which represents a male paratype.

Male genitalia (Figs. 3, 4): Sacculus with 2 sets of paired processes; small, thornlike, outer pair more sclerotized. Median unpaired saccular process prominent, lightly sclerotized, not reaching tips of paired processes, but at base covers $\frac{1}{2}$ of inner pair of paired processes. Valvae exhibiting typical chaetotaxy of genus (row of hairs passing obliquely from tip towards base), but in addition, have 6 to 8 rows of thornlike projections on middle $\frac{1}{3}$. Circumanal membrane prominent, densely scobinate, extending beyond uncus laterally and supported by thin rodlike processes. Subscaphial membrane prominent, subtriangular. Along lateral margins of tegumen, near base of uncus, are complicated curved processes which seem to support the cephalad margin of uncus. Aedeagus with short lateral process tipped with numerous fine spines.

Female genitalia (Figs. 5, 6): Bursa lacking signum. Fig. 6 shows simplified 8th segment sternum and ostium bursae.

Holotype (Fig. 1).—♂, Nueces Co., Texas, North Padre Island, ex-larva *Physalis virginiana* Mill. var. *spathulaefolia* (Torr.) (Solanaceae), emerged 17-IX-81, collected by Roy O. and C. A. Kendall and deposited in the National Museum of Natural History, Smithsonian Institution, Washington, D.C.

Paratypes.—Nueces Co., Texas, North Padre Island, 24-VIII-79, 1 ♂, 1 ♀; same location, 25-VIII-79, 3 ♂ (all collected by A. and M. E. Blanchard in blacklight traps). Nueces Co., Texas, North Padre Island, ex-larva or pupa *Physalis virginiana* var. *spathulaefolia*, dates of emergence as follows: 25-IX-79, 1 ♂; 2-IX-81, 1 ♂; 3-IX-81, 2 ♂; 4-IX-81, 1 ♂; 13-IX-81, 2 ♂, 1 ♀; 14-IX-81, 2 ♂, 1 ♀; 16-IX-81, 4 ♀; 17-IX-81, 4 ♂, 4 ♀; 18-IX-81, 11 ♂, 10 ♀ (Fig. 2); 19-IX-81, 4 ♂, 5 ♀; 20-IX-81, 3 ♂, 4 ♀; 21-IX-81, 4 ♂, 3 ♀; 22-IX-81, 4 ♂, 2 ♀; 23-IX-81, 1 ♀. Kleberg Co., Texas, Padre Island National Seashore, 5-IX-81, 1 ♀ (all collected and reared by Roy O. and C. A. Kendall).

Distribution.—So far known only from Nueces and Kleberg counties, Texas.

Life history.—Larvae and pupae found in galls on upper stems of *Physalis virginiana* Mill. var. *spathulaefolia* (Torr.) (Solanaceae). Examples were collected on sand dunes at various locations in Padre Island National Seashore, in Nueces and Kleberg counties.

Remarks.—The genus *Symmetrischema* was erected by Povolný (1967) in his notes on Nearctic and Neotropical *Gnorimoschemini*. *Symmetrischema* is separated from its nearest relative, *Gnorimoschema* Busck (1903), mainly by characteristics of the male genitalia which include tendency toward the formation of a median unpaired process of the sacculus, enlargement of the terminal portion of the valvae to form irregularly trapezoidal planes with typical chaetotaxy, strongly developed circumanal membrane, and a lateral process of the aedeagus. Additionally, the female genitalia show a tendency towards reduction of the signum. *Symmetrischema kendallorum* clearly exhibits all of the above characteristics, but it is obviously distinct from all other known species. The authors take pleasure in naming this new species for Roy O. and C. A. Kendall, who discovered the larval food plant and reared nearly all of the type-series.

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LITERATURE CITED

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